

We claim:

1. A method of administering recombinant adeno-associated virus (rAAV) virions to a human, comprising:
- (a) providing at least one rAAV virion, said at least one rAAV virion comprising a vector further comprising a heterologous nucleic acid sequence; and
  - (b) delivering said rAAV virions to a human wherein said human has preexisting anti-AAV antibodies;
  - (c) wherein said heterologous nucleic acid sequence is expressed.
2. The method of claim 1, wherein said preexisting anti-AAV antibodies are anti-AAV-2 antibodies.
3. The method of claim 1, wherein expression of said heterologous nucleic acid sequence results in a therapeutic effect.
4. The method of claim 1, wherein said heterologous nucleic acid sequence codes for a polypeptide.
5. The method of claim 4, wherein said polypeptide is Factor IX.
6. The method of claim 5, wherein said Factor IX is secreted into an extracellular space.
7. The method of claim 5, wherein said Factor IX is secreted into a blood vessel.
8. The method of claim 1, wherein the delivering of said rAAV virions to said human is by injection to a muscle.
9. The method of claim 8, wherein said injection is to one or more slow-twitch

muscle fibers of said muscle.

10. The method of claim 8, wherein said injection is performed at least once on said muscle.

11. The method of claim 1, wherein the delivering of said rAAV virions to said human is by injecting into a duct of a secretory gland.

12. The method of claim 11, wherein the secretory gland is a liver.

13. A method of treating hemophilia in a human, comprising:

- 05830703 061304  
SUB A2
- (a) providing at least one recombinant adeno-associated virus (rAAV) virion, said rAAV virion comprising a vector further comprising a heterologous nucleic acid sequence further comprising a gene encoding a blood coagulation factor; and
  - (b) delivering said rAAV virions to said human wherein said human has preexisting anti-AAV antibodies; and
  - (c) wherein said blood coagulation factor is expressed at a level having a therapeutic effect.

14. The method of claim 13, wherein said preexisting anti-AAV antibodies are anti-AAV-2 antibodies.

15. The method of claim 13, wherein said blood coagulation factor is Factor IX.

16. The method of claim 15, wherein said Factor IX is human Factor IX.

17. The method of claim 15, wherein said Factor IX is secreted into an extracellular space.

18. The method of claim 15, wherein said Factor IX is secreted into a blood vessel.

19. The method of claim 17, wherein said Factor IX is human Factor IX.
20. The method of claim 18, wherein said Factor IX is human Factor IX.
21. The method of claim 13, wherein the delivering of said rAAV virion to said human is by injection to a muscle.
22. The method of claim 19, wherein said injection is to one or more slow-twitch muscle fibers.
23. The method of claim 20, wherein said injection is to one or more slow-twitch muscle fibers.
24. The method of claim 21, wherein said injection is performed at least once on said muscle.
25. The method of claim 22, wherein said injection is performed at least once on said muscle.
26. The method of claim 23, wherein said injection is performed at least once on said muscle.

05830702-061901  
T061901-061901